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David J. Caspi^a, Joshua D. Freilich^b & Steven M. Chermak^c

^a John Jay College of Criminal Justice, Department of Law and
Police Science, New York, USA

^b John Jay College of Criminal Justice, Department of Criminal
Justice, New York, USA

^c School of Criminal Justice, Michigan State University, East
Lansing, USA

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EMPIRICAL PAPER

Worst of the bad: Violent white supremacist groups and lethality

David J. Caspi^{a*}, Joshua D. Freilich^b and Steven M. Chermak^c

^a*John Jay College of Criminal Justice, Department of Law and Police Science, New York, USA;*

^b*John Jay College of Criminal Justice, Department of Criminal Justice, New York, USA;*

^c*School of Criminal Justice, Michigan State University, East Lansing, USA*

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This study uses Social Network Analysis (SNA) to examine a network of domestic white supremacist groups associated with one or more ideologically motivated homicides between 1990 and 2008. SNA has rarely been used to study domestic extremist and/or terrorist organizations. Prior research using SNA has focused on foreign individual members of terrorist networks like Al Qaeda. This project begins to fill gaps in the literature by analyzing whether group role/location within this white supremacist group network is associated with greater levels of lethality. We find that the network is decentralized but ideologically integrated. Groups centrally located in the network are associated with more deaths. The study provides a foundation for future research investigating the connection between network location and lethality, the evolution of dangerous networks over time, and lone-wolf ties to the larger white supremacist movement.

Keywords: far-right extremism; domestic terrorism; social network analysis; terrorist and extremist organizations; political violence

This study uses social network analysis (SNA) to examine a network of domestic white supremacist groups whose members committed at least one ideologically motivated homicide in the US between 1990 and 2008. The project investigates whether certain network characteristics suggest greater levels of violence. Since 9/11 SNA researchers have focused on international terrorism, particularly individual networks of foreign jihadists. Few studies have examined domestic extremists such as the far-right and an even smaller number have studied organizational-level networks. This study fills these gaps.

There is evidence that members of the far right, especially white supremacists, pose a deadly threat to the US. Attacks by the far-right claimed more than 250 lives between 1978 and 2000 (Hewitt, 2003), and the far-right was linked to 60 planned and/or attempted terrorist plots between 1995 and 2005 (Blejwas, Griggs, & Potok, 2005). The United States Extremist Crime Database (ECDB) has documented 329 homicide events, claiming over 560 lives, committed by domestic far-right extremists between 1990 and 2008. Over 100 formal organizations¹ were connected to these incidents. Of these incidents, 128 were ideologically motivated and took the lives of over 315 persons (Freilich, Chermak, Belli, Gruenewald, & Parkin, in press).

*Corresponding author. Email: dcaspi@jjay.cuny.edu

SNA is an exploratory quantitative approach partially based on interpretation of a visualization of a network. It has been used to study connections among individual terrorist networks, such as members of the global jihad (Bakker, 2006; Sageman, 2004). However, there are few prior studies employing SNA to study organizational-level networks or the white supremacist movement, and those that do rely on web links to represent relational ties (Burris, Smith, & Strahm 2000; Gustavson, & Sherkat, 2000). Our study analyzes actual ties (e.g. friendships, business transactions, coordination, etc.) between and among white supremacist groups whose members committed at least one ideologically motivated homicide² to determine whether network location is indicative of an increased threat.

The study uses data from the ECDB, a relational database that tracks violent and financial crimes committed by political extremists in the US (Freilich et al., in press). We used the ECDB to identify ideologically motivated homicides associated with a formal white supremacist group. An open-source-based group data set was also created. SNA methods were used to measure overall network structure. We examined whether group location/role within the network was related to the number of ideologically motivated homicides group members committed. Lastly, this study discusses the potential policy implications related to the findings.

Social Network Analysis (SNA) and terrorism research

SNA is increasingly employed to study extremist networks. SNA maps ties (links) between nodes. Nodes are identifiable entities, such as individuals, actors, groups, countries, documents, or corporations. Nodes are generally known as cases in the behavioral and social science communities. In these methods, nodes are described as having attributes. Attributes describing individuals may include age, gender, and occupation. Attributes describing groups could include size, geographic location, and ideology. Attributes are generally known as variables or measures in the social and behavioral science community.

SNA is an exploratory method like cluster analysis, Q factor analysis, and multidimensional scaling. These methods are used to explore an entity by entity (case by case) matrix. For each pair of entities there is a measure of a tie, link, distance, association, correlation, similarity, or relation. Nodes can be linked to each other directly (e.g. personal communication, or choosing as a playmate). Nodes can be linked indirectly (e.g. co-membership in a political organization, both cited as a reference in a journal article, both in a political alliance). The measures can represent the direction, type, or strength of a relationship.

The patterns of ties between pairs of nodes reveal relationships and these patterns comprise a network. A visualization of the network aids interpretation. Variables describing the position/role of a node in a network can be included in common cases by variables (nodes by attributes) data matrix for further analysis.

Networks matter because we are social beings and the connecting ties represent interpersonal relations. People who are similar (i.e. similar ideologies or social characteristics) are thought to be more likely to interact and share information, norms, and attitudes. People who interact regularly foster a common attitude or identity and tend to act as a group (de Nooy, Mrvar, & Batagelj, 2005; Wasserman, & Faust, 2006). The reverse is also possible. Entities with common norms will bring together those with common attributes (Burt, 1982). Networks are often homogenous with regard to behavioral, political, and/or intrapersonal

characteristics. This homogeneity limits the social world of network members and reinforces attitudes, experiences, and beliefs (McPherson, Smith-Lovin, & Cook, 2001). Importantly, SNA could increase prediction capabilities through its inclusion of nodal attributes in addition to relational ties (Renfro, & Deckro, 2001).

While the application of SNA to the study of terrorism contributes to the growing body of systematic research, it focuses overwhelmingly on international terrorism. For example, in 2002 the social network journal *Connections* devoted an entire issue to SNA and terrorism. Krebb's (2002) found that the 9/11 hijackers network maintained resilient ties through redundancy of prior contacts already firmly in place. These close ties were rarely active and virtually invisible while the terrorists were preparing the attacks. Although there was no formal hierarchy, the leaders (most central) of the network were those in possession of a valuable skill (e.g. the pilots). Similarly, Rodriquez's (2004) mapping of the 2004 Madrid bombing determined that terrorist networks thrive on ties "forged among people that trust each other, even when they have never interacted before, on the bases of their participation in similar endeavors" (i.e. previous attacks, war in Chechnya, etc.).

A study of global jihadist networks, including the al-Qaeda operatives involved in 9/11, determined that recruitment into jihadist organizations tends to be "bottom up". Individuals are introduced to jihadist groups through social bonds (primarily friends) and become increasingly extreme in their ideology. The social bonds predate radicalization (Sageman, 2004). Asal and Rethemeyer (2008) used data from the Memorial Institute for the Prevention of Terrorism to study why some terrorist organizations are more deadly than others. They found that organizations with many ties (degree) to other terrorist organizations caused more fatalities. This suggests that certain network measurements (e.g. degree centrality) may predict future threats. Asal and Rethemeyer also found that both religious groups and larger organizations were more lethal.

Importantly, there are few SNA studies of American extremists and all of them focus on web links among white supremacists groups. Burris et al. (2000) examined the inter-organizational structure of the white supremacist movement by treating web links as ties of affinity, communication, or potential coordination. They found that the white supremacist movement was decentralized but contained multiple centers of influence. The strongest links existed between groups with special interests (e.g. Holocaust revision) and the movement was isolated from mainstream conservatives and other extremists. Similarly, Gustavson and Sherkat (2004) examined the ideological structuring of white supremacist groups and used Internet ties as the connecting link. They focused on ties to the Aryan Nations, a leading white supremacist organization that has long sought to unify the movement. Gustavson and Sherkat analyzed the size and density of ties and found that revisionist sites were the most popular. Neo-Nazi sites were centrally located, even though they were not closely tied together or more popular.

In sum, the few studies that have looked at white supremacist group networks have found that they are decentralized and non-cohesive, but that there is significant interaction between ideologies and certain groups play a central role. All the SNA studies of US extremists limit the recorded relationship tie to web links (Zhou, Reid, Qin, Chen, & Lai, 2005). Importantly, while SNA has furthered our understanding of terrorist network characteristics, only Asal and Rethemeyer (2008) have used it to predict group lethality.

Hypotheses

In this study we analyze actual relational ties (e.g. friendship or dealings between group leaders) to assess network structure, centralization, and cohesion. We investigate the ideological structuring of groups linked to ideologically motivated homicides and assess the centrality of the Aryan Nations in this network. Our study examines when more centrally located groups are associated with a greater number of homicides than peripherally located groups. Based upon our review of the literature this study examines the structure of two related networks (Focal Groups Network; Focal Groups Embedded Network – explained below) involving far-right extremists involved in ideological homicides between 1990 and 2008. We expect that the analysis will support several hypotheses for both networks:

- (1) the networks will be non-cohesive and decentralized,
- (2) the Aryan Nations will be critical to the networks,
- (3) groups will be primarily linked to other groups that share their ideology,
- (4) more centrally located groups will be associated with more deaths,
- (5) central groups will be more ideologically integrated,
- (6) organizational size will be associated with centrality and larger groups will be more central,
- (7) organizational age will be associated with centrality and older groups will be more central.

Data and analysis

Data

This study uses data from the US ECDB (Freilich et al., in press). The ECDB includes violent and financial crimes committed by far-right, jihadi and animal and environmental rights extremists in the US from 1990 to 2008, but the analysis here focuses on homicides committed by domestic far-rightists.

We reviewed the ECDB to identify ideologically motivated homicide incidents committed by formal members of white supremacist groups between 1990 and 2008. All homicide events in the ECDB must meet two criteria: (1) the homicide must have occurred in the US between 1990 and 2008; (2) at time of the incident at least one of the suspects subscribed to a far-right belief system (Chermak, Freilich, Parkin, & Lynch, 2012). The ECDB contains 329 homicidal incidents and 128 (39%) were ideologically motivated.³ Of the 128 ideologically motivated incidents, 88 (69%) were committed by white supremacists and 44 (50%) involved at least one formal member of a white supremacist organization at the time of the incident.⁴ Thirty white supremacist groups were associated with the 44 incidents that caused 49 deaths.

We randomly selected 13 of these 30 white supremacist groups for analysis. This is consistent with previous SNA studies that only used a small number of nodes (see Krebs, 2002). Our sample represents nearly 50% of the total population and accounts for 59% of the total number of deaths (see Table 1). The 13 groups vary in size, age, and ideology and should be a representative sample of lethal white supremacist organizations.

The 13 groups in the study are: American Front, Aryan Brotherhood, Aryan National Front, Aryan Nations, Confederate Knights of America, Confederate

White Vikings, Denver Skins, Hammerskin Nation, Insane Criminal Posse, National Socialist Front,⁵ Nazi Low Riders, Volksfront, World Church of the Creator.

Information on the attributes and relations among the 13 groups was culled via a systematic search of all existing terrorism databases, official sources, watch-group organizations, court records, and 26 web engines. These sources were used to collect and code relational data indicating ties (links) between groups and the strength of those ties. We also collected and coded information on group ideology, age, and size.

Prior research has found that white supremacist groups are linked to other organizations that share their ideology. We examine this issue with both the small network of 13 groups associated with ideologically motivated homicides and the larger network that includes their links to the broader movement. There were six identifiable ideologies and each was assigned a number. Berlet and Vistotsky (2006) note that white supremacist categories frequently include neo-Nazi, Christian Identity, racist skinhead, and Ku Klux Klan. However, this organizational system fails to capture categories such as religious ideologies that reject Christianity. Bertlet and Vistotsky suggest categorizing white supremacist groups by ideology and activity and provides three broad typologies: political, religious, and youth cultural. We agree and used the typology set forth in a Department of Homeland Security Office Intelligence and Analysis report (USDHS, 2009): neo-Nazi, Christian Identity, racist skinhead, Aryan prison gangs, Nordic mysticism, and Ku Klux Klan (KKK). However, we replaced the KKK category with “White Supremacist – General” because there is variety among KKK groups (i.e. traditional vs. Christian Identity-oriented). Also, we did not use the “Nordic mysticism” category because none of the groups in our study subscribed to this ideology. Finally, we added the category of “Creativity”, a distinctive religious-based ideology (see Appendix “A” for definitions of ideologies). The study involved one Christian Identity group, four Racist Skinhead groups, two white supremacist prison gangs, three neo-Nazi groups, two White Supremacist – General groups, and one Creativity organization.

We also rated the strength of each organization’s ideological affiliation. As noted above, strength of affiliation was assessed after a systematic review of a significant number of sources. This is a significant improvement over previous research which has relied on 0/1 dichotomous characterizations. Organizations consistently identified with a particular ideology should promote that belief system. Strength of affiliation was coded on a scale of one to three. Scores of three indicate groups only identified with one specific ideology. A score of two captured groups

Table 1. General overview of 1990–2008 homicide data from ECD.

	Homicidal incidents	Number of actual victims
Total committed	329	584 (416 without McVeigh’s 168 victims)
Ideologically motivated	128 (39% of 329)	316 [148 (37%) without McVeigh’s 168 victims]
Ideological and committed by White Supremacists	88 (69% of 124)	98 (63% of 150)
Ideological and Committed by member of formal White Supremacist Group	44 (50% of 88)	49 (50% of 95)

primarily, but not exclusively, identified with one ideology. A score of one represented those groups that were not associated with any specific ideology. Table 2 indicates each of the 13 groups, its ideological affiliation, and the strength of that affiliation.

Age was included to examine when group longevity was associated with greater numbers of ideologically motivated homicides. Network location and homicide number may be a function of how long a group has existed. Age was determined as the number of years in existence from the time of creation to 2008. Groups were assigned to one of four age categories: 1–5 years, 6–15 years, 16–30 years, and over 31 years. Groups varied in age from one year to over 45 years.

Size was included to investigate when larger groups were more lethal. This study provides an 18-year snapshot of organizations from a movement with a long history. Because it is difficult to obtain yearly membership estimates, group size was based on the highest estimated number of members reported. Sizes were assigned to one of five categories. Categories represent group sizes of less than 10, tens, hundreds, thousands, and over 10,000. A sixth category was created for two groups where number of members could not be reliably obtained. Group size varied from only three members to 15,000.

Coding links

The 13 groups were researched to uncover their links to each other. This network was labeled “Focal Groups Network” (FGN). We also recorded each focal group’s links to other white supremacist groups (non-focal groups).⁶ Here we examined whether links to the broader movement change the roles among the focal groups in relation to each other. This network was labeled “Focal Groups Embedded Network” (FGEN). The FGEN network consisted of 64 groups (13 focal and 51 non-focal groups).

Table 2. Group, ideology, and strength of association.

Ideology	Focal groups	Strength of affiliation
Racist skinhead	American Front	3
	Denver Skins	3
	Hammerskin Nation	2 (also referred to as Neo-Nazi skinhead)
Neo-Nazi	Confederate White Vikings	3
	Aryan National Front	2 (also referred to as a Neo-Nazi racist skinhead)
	National Socialist Front	2 (one source referred to as a Neo-Nazi skinhead)
	Volksfront	2 (also referred to as a Neo-Nazi skinhead group)
White Supremacist – Prison Gang	Aryan Brotherhood	3
	Nazi Low Riders	3
White Supremacist – General	Confederate Knights of America	2 (one source referred to as a Klan-related prison group)
	Insane Criminal Posse	1
Christian Identity	Aryan Nations	2 (some refer to as Neo-Nazi but recognize religious foundation)
Creativity	World Church of the Creator	3

Each recorded tie was valued to represent the strength of the connection between the groups. Table 3 provides the classification system by which ties were identified and valued.

Analysis

First, we used open sources to craft case studies on each focal group to provide contextual background. Second, we identified the connecting ties among the focal groups and among focal groups and non-focal groups. The relational data were then uploaded to network analysis software. Third, we applied SNA to the relational data to investigate two single mode networks: Focal Groups Network (FGN) and Focal

Table 3. Valuation of links among focal groups.

Link value	Link type
	<i>Positive links</i>
3 = strong positive link	<ul style="list-style-type: none"> ◆ leaders are close friends ◆ groups cooperate in criminal enterprise ◆ one group runs/manages other group
Relationship involves <i>significant regular interaction/communication</i> between groups and their leaders	
2 = moderate positive link	<ul style="list-style-type: none"> ◆ groups allied or described as having close ties but tie is not defined; ◆ groups co-organize/co-sponsor event ◆ group or leader of group provides occasional financial or other type of support to other group; ◆ group/member of group provides ongoing and consistent service to other group (i.e. managing website)
Relationship involves somewhat <i>regular interaction/communication</i> between groups	
1 = weak positive link	<ul style="list-style-type: none"> ◆ leader of group invited to speak at another group's event ◆ members co-participate in criminal act but not part of ongoing criminal enterprise; ◆ media reports link but does not comment on strength or type of link ◆ leaders engage in one time business dealing ◆ member (low-ranking, not leader) is also simultaneously a member of the other group
Relationship involves <i>limited interaction/communication</i> between groups	
0 = no links	<i>Absence of links</i>
No relationship with any other groups in the network	<ul style="list-style-type: none"> ◆ the absence of any positive or negative ties with any other group in the network
	<i>Negative links</i>
- 1 = negative link	<ul style="list-style-type: none"> ◆ personal dislike between leaders ◆ members of group speak negatively about other group ◆ physical confrontation between members of two groups ◆ business deal gone bad ◆ group split from other on non-friendly terms
Relationship involves hostile feelings or conflict and thus negative or no interaction	

Groups Embedded Network (FGEN). Pajek software (version 1.25) was used to analyze the coded relational data of both networks to measure network and node level characteristics (Table 4).

Findings

A. Overall network level measurements – FGN and FGEN (Hypothesis 1)

The analysis of the network began with measurements of the overall networks (Table 5).

Consistent with the first hypothesis, neither the FGN nor the FGEN is dense. Only 19.23% of all possible links were present in the FGN and 4.37% of possible

Table 4. Measurements.

Network level	Node level
<i>Density</i> provides an indication of the cohesiveness of the entire network. It assesses how many actual ties exist among all possible ties in the network (percent of all possible ties) (de Nooy et al., 2005). If a large proportion of possible ties do in fact exist within the network, then the network is considered dense.	<i>Degree centrality</i> degree is the number of neighbors (ties to other nodes) a node possesses. Those nodes with the greatest number of neighbors are most popular/important/active. They are where the action is within the network and thus occupy a central position. Nodes with low degrees are more peripheral to the network (Wasserman & Faust, 2006).
<i>Centralization</i> a measure of the variableness or heterogeneity of the centralities of the actors within the network (Wasserman & Faust, 2006). It provides an indication whether and to what extent the network has a center (de Nooy et al., 2005). A very centralized network is dominated by one or a few nodes (www.orgnet.com/sna.html). A network that is dominated by one or a few nodes will have an obvious center and a periphery that depends on the center for access to information (de Nooy et al., 2005).	<i>Closeness centrality</i> closeness is a measure of how accessible a node is to other nodes in the network. The higher the closeness centrality score the more accessible the node, meaning the more quickly it can interact with all others in the network (Wasserman & Faust, 2006). <i>Betweenness centrality</i> betweenness is a measure of how necessary a particular node is to the flow of information. The higher the betweenness centrality score the more likely the node is to be a link in the communication geodesic (shortest path) between any two other nodes in the network (Wasserman & Faust, 2006).

links in the FGEN. The FGEN's lower density is partially because density is inversely related to network size (number of nodes). This is why it is impractical to compare densities of differently sized networks (de Nooy et al., 2005).

Also consistent with the first hypothesis both networks are fairly decentralized. Decentralized networks take longer to transfer information, ideas, goods, etc., but can be covert and less susceptible to destabilization. Of the centralization measurements, betweenness centralization scores were the highest and were similar between the two networks. These scores suggest that groups with high betweenness centrality scores tend to be more centrally located within the network.

B. Focal group network: actor (node) level measurements and map visualization (Hypotheses 2 and 3)

Within the FGN (Table 6), the two most popular groups (degree centrality) are the Aryan Nations (Christian Identity) and Hammerskin Nation (Racist Skinhead) with five links each. The next most popular are Volksfront (Neo-Nazi) and Aryan Brotherhood (White Supremacist – Prison Gang). Each of the top four groups represents a different ideology (see Figure 1) and together account for 57% of the

Table 5. Overall network structure.

	Network size (number of nodes)	Density	Degree centralization	Closeness centralization	Betweenness centralization
Focal Groups Network (FGN)	13	19.23%	.2652	N/A*	.4552
Focal Groups Embedded Network (FGEN)	64	4.37%	.2826	.3689	.4668

Notes: *Closeness centralization cannot be calculated when a network is not weakly connected. Because the Insane Criminal Posse is not connected to any of the focal groups the network is not weakly connected.

Table 6. Ranked centrality measurements of Focal Groups Network (FGN).

	Degree centrality	Closeness centrality	Betweenness centrality	Deaths linked to (percent)
Aryan Nations	5	.5344	.5379	4 (14.8%)
American Front	2	.3173	.0000	2 (7.4%)
Hammerskin Nation	5	.4415	.2273	3 (11.1%)
Volksfront	3	.4062	.0530	1 (3.7%)
Aryan Brotherhood	3	.4835	.4394	9 (25.9%)
Aryan National Front	1	.3077)	.0000	1 (3.7%)
World Church of Creator	2	.2901	.0152	3 (11.1%)
Nazi Low Riders	2	.3626	.1212	1 (3.7%)
Confederate Knights of America	2	.3626	.1212	1 (3.7%)
National Socialist Front	2	.2901	.0152	1 (3.7%)
Confederate White Vikings	2	.3905	.0000	1 (3.7%)
Denver Skins	1	.3501	.0000	1 (3.7%)
Insane Criminal Posse	0	.0000	.0000	1 (3.7%)
	Mean = 2.31	Mean = .3490	Mean = .1177	Mean = 2.23 Total = 29 (100%)

homicides. The four least popular groups (Denver Skins, Aryan National Front, and Insane Criminal Posse) have either only one link to this dangerous network or no link at all, and only account for 14% of the deaths.

Closeness scores indicate which nodes are most accessible to others in the network. The Aryan Nations (.5344) and the Aryan Brotherhood (.4835) are the most accessible and are within 3 steps or less of other groups in the network (see Figure 1). Hammerskin Nation (.4415) is ranked third and Volksfront fourth (.4062). Thus, the same four groups that are most popular are also the most accessible.

Betweenness centrality assesses the frequency with which a node is a link in a chain of communication between any two nodes in a network. The Aryan Nations (.5379) and the Aryan Brotherhood (.4394) possess the highest betweenness centrality scores in the FGN. This is not surprising considering their network locations. For information to move from one segment of the network to the other it must move through both the Aryan Nations and Aryan Brotherhood (see Figure 1). Hammerskin Nation has the third highest betweenness centrality measure because it lies on the geodesic of many pathways within its segment of the network. Volksfront is no longer in the top four. Nevertheless, the top four groups continue to account for 57% of the number of homicides.

Figure 1, a degree centrality map with the attribute of ideology, reveals the ideological affiliation of each of the focal groups and how they were connected to each other. The network is comprised of two segments. The right side of the network (Segment 1) consists of the Aryan Nations, Hammerskin Nation, Volksfront, American Front, Aryan National Front, Confederate White Vikings, and the Denver Skins. Segment 1 is comprised almost exclusively of neo-Nazi and racist skinhead groups.

The left side of the network (Segment 2) consists of the Aryan Brotherhood, Confederate Knights of America, Nazi Low Riders, World Church of the Creator, and the National Socialist Front.

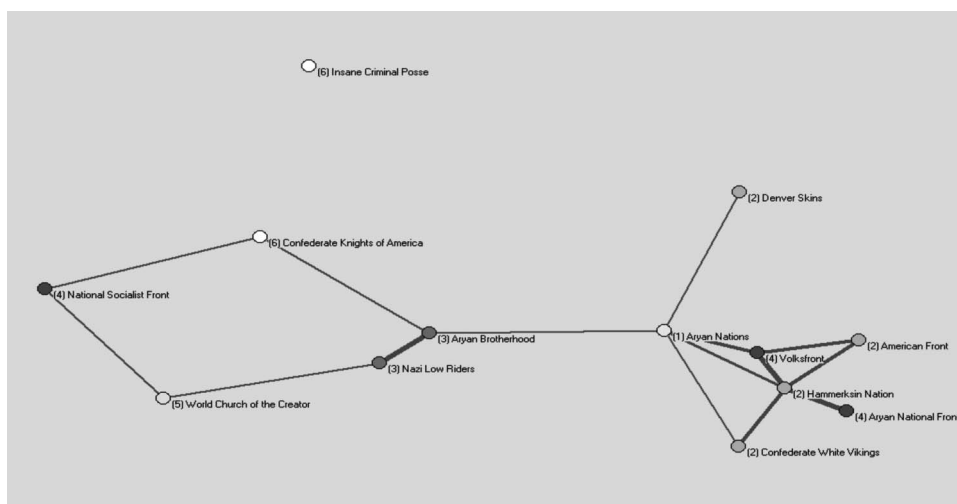


Figure 1. Degree centrality of FGN with ideology attribute.

Notes: *Yellow (1), Christian Identity; Green (2), Racist skinhead; Red (3), White Supremacist – Prison Gang; Blue (4), Neo-Nazi; Pink (5), World Church of the Creator; White (6), White Supremacist – General. **Line thickness represents strength of tie. The thicker the line, the stronger the tie.

and the National Socialist Front. The Insane Criminal Posse was not connected to any other of the 13 focal groups.

Interestingly, in addition to being comparable in size, the two segments of the network are each linked to 50% of the homicides and appear to pose the same threat level.

The Aryan Nations and Aryan Brotherhood, the two groups associated with the greatest number of homicides hold central positions within the network and are the only link between the two segments. The Aryan Nations and Aryan Brotherhood are linked because of the former's active prison outreach and inmate recruitment efforts (Anti-Defamation League, 1998b).

Segment 1 consists of stronger ties (represented by shorter and thicker lines) than the groups in Segment 2 and appears to be more cohesive. This may be a result of greater ideological homogeneity. Interestingly, three of the top four most central groups are located in Segment 1. In Segment 2, the Aryan Brotherhood's close tie with the Nazi Low Riders is due to their long standing collaboration in criminal enterprises (Anti-Defamation League, 1998a; Freilich, Chermak, & Caspi, 2009; Simi, Smith, & Reeser, 2008).

C. Focal group embedded network: actor (node) level measurements and map visualization (Hypotheses 2 and 3)

It is necessary to situate these groups into the broader movement to obtain a better sense of their respective roles to each other. Table 7 provides the relative centrality measurements for the 13 groups of the study once their links to the broader white supremacist movement are considered.

In the FGEN, the Aryan Nations continues to be the most popular among the thirteen focal groups with 20 links. Hammerskin Nation and Volksfront, each with 12 links, also continue to be among the four most popular. However, the American Front (Racist Skinhead), with 16 links, is considerably more popular than indicated in the FGN, suggesting a more significant role. Conversely, the Aryan Brotherhood is less popular indicating a smaller role within the studied network. Similar to the

Table 7. Ranked measures of Focal Groups Embedded Network (CGEN).

	Degree centrality	Closeness centrality	Betweenness centrality	Deaths linked to (percent)
Aryan Nations	20	.5164	.4925	4 (14.8%)
American Front	16	.4565	.2854	2 (7.4%)
Hammerskin Nation	12	.4737	.3492	3 (11.1%)
Volksfront	12	.4737	.1760	1 (3.7%)
Aryan Brotherhood	10	.4228	.2263	9 (25.9%)
Aryan National Front	7	.3443	.1556	1 (3.7%)
World Church of the Creator	6	.3424	.0676	3 (11.1%)
Nazi Low Riders	6	.3520	.0312	1 (3.7%)
Confederate Knights of America	5	.3369	.0731	1 (3.7%)
National Socialist Front	4	.3298	.0121	1 (3.7%)
Confederate White Vikings	2	.3888	.0000	1 (3.7%)
Denver Skins	2	.3462	.0000	1 (3.7%)
Insane Criminal Posse	1	.3014	.0000	1 (3.7%)
	Mean = 7.92	Mean = .3912	Mean = .1438	Mean =2.23 29 (100%)

FGN, the most central groups represent a variety of ideologies (Christian Identity, Racist Skinhead, and neo-Nazi) and account for 35.5% of the number of deaths compared to the four least popular groups (14%).

With regard to closeness centrality, the same four groups are at the top – Aryan Nations (.5118), Volksfront (.4737) and Hammerskin Nation (.4737), and American Front (.4565) – but not in the same order. The American Front was second most popular but fourth most accessible. Also, certain groups, which are ranked at the bottom in terms of popularity, are fairly accessible. The Confederate White Vikings, ranked among the bottom three in degree centrality, is ranked sixth in closeness centrality. This is likely because its only two links are to groups possessing high closeness centrality scores – Aryan Nations and Hammerskin Nation.

As for betweenness centrality, the Aryan Nations (.4925) continues to rank first, while Hammerskin Nation (.3492), American Front (.2854) third and Aryan Brotherhood (.2263) was fourth. Thus, when considering betweenness centrality, the four most central groups are linked to 62% of the ideological homicides. This is the highest of all centrality measurements.

Once situated into the broader white supremacist movement, the central roles of the Aryan Nations (20), American Front (16), Hammerskin Nation (12), and Volksfront (12) are apparent. The hypothesis that groups tend to be primarily linked to groups with the same ideology is supported. Figure 2 reveals that half of the Aryan Nations' links are to other Christian Identity groups (yellow), racist skinhead groups (green) are primarily linked to other racist skinheads, and the Aryan Brotherhood is primarily linked to other white supremacist – prison gangs (red).

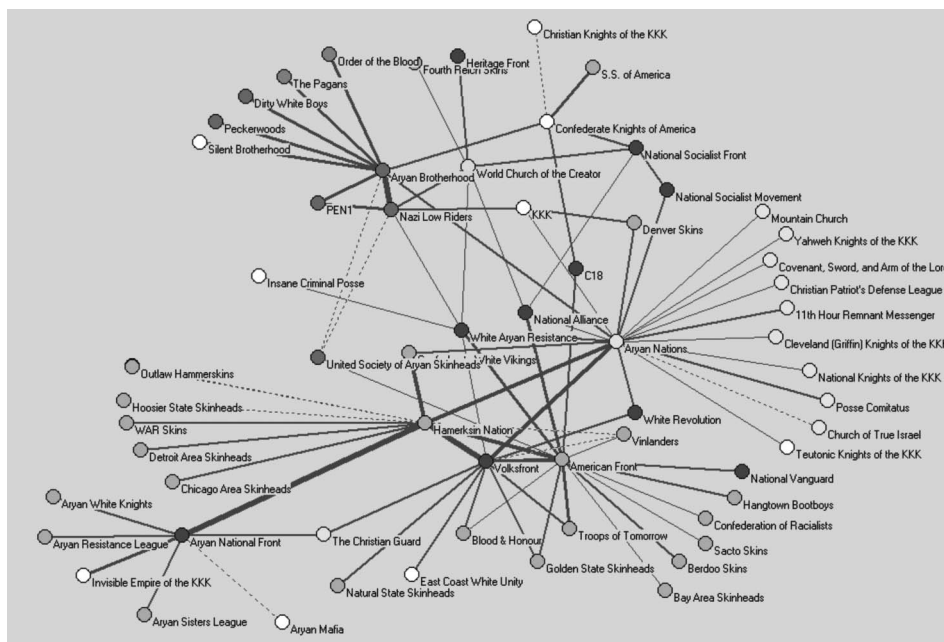


Figure 2. Degree centrality of FGEN with ideology attribute.

Notes: *Yellow (1), Christian Identity; Green (2), Racist skinhead; Red (3), White Supremacist – Prison Gang; Blue (4), Neo-Nazi; Pink (5), Creativity; White (6), White Supremacist – General; Orange, Biker Gang.

In sum, centrality measurements and map visualization for both the FGN and the FGEN support the hypothesis that the Aryan Nations was a key player among the focal groups in both networks. The FGEN provides clearer support for the hypothesis that white supremacist groups are tied to groups with similar ideology. It appears that neo-Nazi groups are serving as intermediaries between groups of differing ideologies.

D. Association between centrality and threat (Hypothesis 4)

When considering the centrality measurements together, three FGN groups consistently ranked at the top – Aryan Nations, Aryan Brotherhood, and Hammerskin Nation. These groups were most popular, most accessible, and most important to the flow of information. Interestingly, these three groups (23% of total study sample) were associated with 55.1% of the homicides. Although there were some changes in ranking among the focal groups when links to the broader white supremacist movement were included, the three most consistently central groups in the FGEN (Aryan Nations, American Front, Hammerskin Nation) accounted for 31% of the homicides and the three least central groups just 10.3%. These findings support the hypothesis that network location is associated with an increased threat level.

E. Association between group attributes and centrality (Hypotheses 5, 6, and 7)

We also investigated whether the attributes of ideology, age, and size are associated with centrality. It was hypothesized that no specific ideology will be overrepresented among the most central groups, but larger and older groups will be overrepresented. The ideological hypothesis was supported. In the FGN each of the four most central belonged to a different ideological categorization (Table 8). Similarly, in the FGEN three different ideologies are represented among the four most central groups. Interestingly though two of the four most central groups are racist Skinheads. Racist Skinhead organizations made up 30% of the sample.

The age hypothesis was supported. Three of the four most central groups existed for 16 years or longer. Only Volksfront existed for less than 15 years and it was the

Table 8. Ideological, age, and size characteristics.

Group	Centrality rank	Ideology	Age	Size
<i>Focal Groups Network</i>				
Aryan Nations	1	Christian Identity	31+ years	101–1000 members
Aryan Brotherhood	2	White Supremacist – Prison Gang	31+ years	10,000+ members
Hammerskin Nation	3	Racist Skinhead	16–30 years	101–1000 members
Volksfront	4	Neo-Nazi	6–15 years	11–100 members
<i>Focal Groups Embedded Network</i>				
Aryan Nations	1	Christian Identity	31+ years	101–1000 members
Hammerskin Nation	2	Racist Skinhead	16–30 years	101–1000 members
American Front	3	Racist Skinhead	16–30 years	11–100 members
Volksfont	4	Neo-Nazi	6–15 years	11–100 members

least central of the four most central groups. This suggests a positive relationship between age and centrality. However, this conclusion is tempered because 62% of the groups in the sample existed for at least 16 years.

The size hypothesis was not supported. Groups with 101–1000 members dominate the central positions even though this size range was not the largest category (Table 8). There does not appear to be a positive relationship between group size and centrality. It should be noted, however, that only two groups in the study possessed more than 1000 members.

Discussion

This study used SNA to examine a network of domestic white supremacist groups associated with one or more ideologically motivated homicides between 1990 and 2008. SNA has rarely been used to study domestic extremist and/or terrorist organizations. We analyzed whether group role/location within this white supremacist group network is associated with greater levels of lethality and found that the network is decentralized but ideologically integrated. Centrally located groups are associated with more deaths. As hypothesized, a network of white supremacist groups associated with ideologically motivated homicides is dispersed and non-cohesive. Groups tend to be linked to other groups with similar ideology. The Aryan Nations emerged as a central player, but no single ideology was found to be central. Lastly, the study found that although groups tend to be linked to groups of like ideology, there is much integration among the ideologies and neo-Nazi groups are likely serving as an intermediary among the ideologies.

Because SNA allows for the incorporation of nodal attributes in addition to relational ties, it can enhance prediction capabilities (Renfro, & Deckro, 2001). While a terrorist organization's structure will reveal relationships and roles, nodal attributes provide a more detailed understanding of the actors themselves'. Interestingly, group age appears to be positively associated with centrality but not group size or ideology. We found that older groups are more centrally located and the most central groups pose a greater threat (associated with more deaths). It is possible that members of these organizations are exposed to more messages (i.e. anger, frustration, call for action) that incentivize actions, be it on their own initiative or at the encouragement of group leaders. Significantly, network centrality is not static and changes over time. For example, the Aryan Nations emerged as an important player during the years of the study, but is currently a shadow of its former self. Thus, the continued use of SNA to capture changing networks, but importantly, understand the reasons for these changes will be critical for future research.

Building upon this study, future research should apply statistical analyses to ascertain whether the apparent relationship between centrality and number of homicides is statistically significant. Future studies will be more comprehensive if they examine all ideologically motivated violent crimes. This should expand the number of groups and allow for more robust findings. It will also provide an opportunity to determine when network structure and network location are related to type of ideological violence. Further, future studies should also analyze networks in smaller time increments. The white supremacist movement is dynamic and is constantly undergoing change as groups merge, split, create alliances, or cease to exist. This study provided an 18-year snapshot of a movement with a long history.

Such a snapshot provides valuable insight into the players and overall network structure, but smaller time increments would provide a more precise picture of how the networks evolved over time. Future research should also focus on the threat posed by lone actors. A recent FBI memo identified lone-wolf extremists as a real concern but noted there is “scant academic study to date of violent individual extremists” (Fields, & Perez, 2009). Finally, our study only focused on the links among the focal groups and their ties to non-focal groups. It did not include links between non-focal groups. This was intentional, as the goal was to specifically study the focal groups in relation to each other. Future research should attempt to map the entire white supremacist movement.

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Notes

1. For the purpose of this study, a formal organization is defined as a collection of two or more individuals coming together under a designated name for the purpose of pursuing a common objective or set of objectives.
2. While the murderous acts involved in this study could possibly be categorized as terrorism, our focus is on ideologically (belief) motivated homicides (illegal conduct). We define “ideologically motivated homicide” as an event where at least one individual is killed and at least one of the participating suspects was motivated by a white supremacist ideology.
3. The remaining 61% of incidents are non-ideologically motivated homicide incidents. There are fatal events that were not committed to further the movement's ideology and were instead committed for personal reasons such as greed.
4. The other 44 (50%) incidents involved suspects who were not formal members of specific white supremacist organizations. These individuals may have acted alone or as part of an informal group.
5. The National Socialist Front referred to in this study was a small group that was active in the 1990s and headquartered in Fayetteville, North Carolina. It is not the same National Socialist Front that is currently active and headquartered in Illinois.
6. Links between non-core groups were not coded as the focus of this preliminary study was on how links from the core groups to the broader white supremacist movement changed a core-group's location and role as compared to other focal groups.

References

- Anti-Defamation League (1998a). *Bigotry Behind Bars: Racist groups in U.S. prisons*. Retrieved September 12, 2009, from www.adl.org/special_reports/racist_groups_in_prisons/prisons_brotherhood.asp.
- Anti-Defamation League (1998b). *Press Release: Aryan Nations*. Retrieved November 3, 2009, from http://www.adl.org/presrele/neosk_82/aryan_nations_82.asp.
- Asal, V., & Rethemeyer, R.K. (2008). The nature of the beast: Organizational structures and the lethality of terrorist attacks. *The Journal of Politics*, 70(2), 437–449.
- Bakker, E. (2006). *Jihadi terrorists in Europe – their characteristics and the circumstances in which they joined the jihad: An exploratory study*. The Hague, Netherlands Institute of International Relations Clingendael. Retrieved January 21, 2010, from http://www.clingendael.nl/publications/2006/20061200_cscp_csp_bakker.pdf.

- Berlet, C., & Vistotsky, S. (2006). Overview of U.S. white supremacist groups. *Journal of Political and Military Sociology*, 34(1), 11–48.
- Blejwas, A., Griggs, A., & Potok, M. (2005). *Terror from the right: Almost 60 terrorist plots uncovered in the U.S.* Retrieved February 9, 2010, from <http://www.Splenter.org/intel/intelreport/article.jsp?pid=906>.
- Burris, V., Smith, E., & Strahm, A. (2000). White supremacist networks on the internet. *Sociological Focus*, 33(2), 215–235.
- Burt, R.S. (1982). *Toward a structural theory of action*. New York, NY: Academic Press.
- Chermak, S.M., Freilich, J.D., Parkin, W., & Lynch, J. (2012). American terrorism and extremist crime data sources and selectivity bias: An investigation focusing on homicide events committed by far-right extremists. *Journal of Quantitative Criminology*, 28(1), 191–218.
- de Nooy, W., Mrvar, A., & Batagelj, V. (2005). *Exploratory Social Network Analysis with Pajek*. Cambridge University Press, New York.
- Fields, G., & Perez, E. (2009, June 15). FBI seeks to target lone extremists. *Wall Street Journal*. Retrieved May 4, 2010 from <http://online.wsj.com/article/SB124501849215613523.html>.
- Freilich, J.D., Chermak, S., Belli, R., Gruenewald, J., & Parkin, W. (in press). *Introducing the United States Extremist Crime Database (ECDB). Terrorism & Political Violence*.
- Freilich, J.D., Chermak, S., & Caspi, D. (2009). Critical events in the life trajectories of domestic extremist white supremacist groups: A case study analysis of four violent organizations. *Criminology and Public Policy*, 8(3), 497–530.
- Gustavson, A.T., & Sherkat, D.E. (2004). Elucidating the web of hate: The ideological structuring of network ties among white supremacist groups on the internet. *Intelligent Systems*, 20(5), 44–51.
- Hewitt, C. (2003). *Understanding terrorism in America: From the Klan to Al Qaeda*. New York, NY: Routledge.
- Krebs, V. (2002). Mapping networks of terrorist cells. *Connections*, 24(3), 43–52.
- McPherson, M., Smith-Lovin, L., & Cook, J.M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415–444.
- Renfro, R., & Deckro, R. (2001). *A social network analysis of the Iranian government*. Paper presented at 69th MORS Symposium, 12–14 June, 2001. Retrieved June 12, 2010, from <http://www.fas.org/irp/eprint/socnet.pdf>.
- Rodriguez, J.A. (2004). *The March 11th Terrorist Network: In its weakness lies its strength*. Retrieved October 3, 2010, from <http://www.ub.es/epp/wp/11m.pdf>.
- Sageman, M. (2004). *Understanding terror networks*. Philadelphia, PA: University of Pennsylvania Press.
- Simi, P., Smith, L., & Reeser, A. (2008). From punk kids to Public Enemy Number One. *Deviant Behavior*, 29(8), 753–774.
- USDHS (2009, March 26). Domestic extremism lexicon. *United States Department of Homeland Security Office of Intelligence and Analysis Reference Aid*. Retrieved September 29, 2010, from <http://www.scribd.com/doc/14884903/Domestic-Extremism-Lexicon-US-Department-of-Homeland-Security-Reference-Aid>.
- Wasserman, S., & Faust, K. (2006). *Social network analysis* (14th Printing). New York, NY: Cambridge University Press.
- Zhou, Y., Reid, E., Qin, J., Chen, H., & Lai, G. (2005). U.S. domestic extremist groups on the Web: Link and content analysis. *Intelligent Systems*, 20(5), 44–51.

Appendix

The following are short descriptions for the different ideological categorizations.

Christian Identity

A racist religion that asserts that non-Jewish white people are God's true "chosen people" and the true descendents of the Twelve Tribes of Israel. There are two strains of this religion (Covenant and Dual Seedline), but both are apocalyptic and believe in a final battle between God and non-Jewish whites against the Satan, Satan's offspring (the Jews), and racial minorities which are viewed as sub-human.

Creativity

Creativity is a racial religion where non-Jewish white people are viewed as nature's highest creation and must therefore be preserved. Jews are considered a mortal enemy as they seek to destroy the white race and control the world by promoting race mixing. Thus, anything deemed to be good for the white race is virtuous and that deemed bad for the race is considered sin. Similar to Christian Identity, Creativity adherents believe in a Jewish conspiracy to control the world and believe in an ultimate apocalyptic showdown. One must adhere to the Creativity religion to be a member.

Neo-Nazis

Neo-Nazis revere the Third Reich and adhere to a politically based ideology founded on Hitler's beliefs as well as national socialist ideals. These groups use Nazi symbols and frequently dress in Nazi uniforms.

Racist skinheads

Combine white supremacist ideology with the skinhead youth subculture. Their ethos is driven by white power music and dress (e.g. shaved head, Doc MartensTM, etc.) as opposed to a particular ideology.

White Supremacist – General

Groups that adhere to a white supremacist belief system but do not espouse a particular ideology (religious, political, or sub-cultural). These groups are generally open with regards to membership and don't require members to adopt a particular belief system.

White Supremacist – Prison Gang

Groups formed in prison and advocating a general white supremacist ideology, as opposed to a specific belief system. Although white supremacist, prison gangs are primarily focused on their criminal enterprises and thus tended to be somewhat independent of the broader white supremacist movement.